

# CITY OF MILPITAS

Building & Safety Division  
455 E. Calaveras Blvd.  
Milpitas, CA 95035  
408-586-3240  
[www.ci.milpitas.ca.gov](http://www.ci.milpitas.ca.gov)



## RESIDENTIAL KITCHEN REMODEL

### 1. PERMIT INFORMATION:

- ☐ The remodeling of an existing kitchen requires a Permit. A Combination permit can be obtained that includes building, electrical, mechanical and plumbing permits all in one.
- ☐ A Building Permit may be issued only to a State of California Licensed Contractor or the Homeowner.
- ☐ If the work is performed by the Homeowner personally or by his/her workers, and an inspection indicates the work cannot be completed satisfactorily, then a licensed contractor must perform the work.
- ☐ If the Homeowner hires workers, State Law requires the Homeowner to obtain Worker's Compensation Insurance. Proof of this insurance is required prior to inspection.

### 2. INSTALLATION REQUIREMENTS:

- ☐ **Building Codes:** All work must comply with the 2010 California Building Code (CBC), 2010 California Residential Code (CRC), 2010 California Mechanical Code (CMC), 2010 California Electrical Code (CEC), 2010 California Plumbing Code (CPC), 2010 California Energy Code based upon 2008 Building Energy Efficiency Standards (CEnc) and 2011 Milpitas Municipal Code (MMC).
- ☐ **On-line permits can only be obtained for kitchen remodels that do not include any modifications to the existing wall and/or ceiling framing.**
- ☐ If any changes will be made to the existing framing, or if any appliances will be relocated, drawings must be submitted and approved and the permit obtained in person from the Permit Center, Building & Safety Department, 455 E. Calaveras Blvd. The drawings required may include:
  - Floor plan: Indicate walls, windows (size and type), and door sizes. Show adjoining rooms and label the use of each room. Show location of all cabinets (upper and lower) and plumbing fixtures and show their dimensions.
  - Ceiling plan: If needed to show ceiling heights, electrical and mechanical installed in the ceiling.
  - Structural: If any walls are being removed or relocated, show existing framing that shows the walls were not bearing, or if they were, how the support is being replaced.
  - Electrical, mechanical & plumbing: Show electrical receptacles, electrical fixtures with switching, and ventilation. May be included on the floor plan.
  - Details and Notes: Provide all details and notes required to explain the work.
  - All drawings must be signed by the person preparing them.
- ☐ In single family residences and multi-family (townhomes, condominiums, and apartments), installation of smoke detectors, carbon dioxide alarms and spark arrestors on all chimneys is required prior to the final inspection as follows:

- **Smoke Alarms:** When the value of the work exceeds \$1,000, smoke alarms approved and listed by the State Fire Marshal must be installed if they do not already exist in each sleeping room, outside each separate sleeping area in the immediate vicinity of the bedrooms, and on each additional story of the dwelling. In existing buildings, alarms may be solely battery operated where alterations or repairs do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for building wiring without the removal of interior finishes. Where more than one smoke alarm is required to be installed, the alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit, except where alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for interconnection without the removal of interior finishes. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. Refer to CRC Section R314 and the "Smoke Alarms" handout for more additional information.
- **Carbon Monoxide Alarms:** When the value of the work exceeds \$1,000, an approved and listed carbon monoxide alarm shall be installed if they do not already exist in existing dwellings or sleeping units that have attached garages or fuel-burning appliances as follows: outside each separate dwelling unit sleeping area in the immediate vicinity of bedrooms and on every level of dwelling unit. In existing dwelling units a carbon monoxide alarm is permitted to be solely battery operated where repairs or alterations do not result in the removal of wall and ceiling finishes or there is no access by means of attic, basement or crawl space. Where more than one carbon monoxide alarm is required to be installed, the alarms shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit, except where repairs do not result in the removal of wall and ceiling finishes, there is no access by means of attic, basement or crawl space, and no previous method for interconnection existed. See CRC Section R315 for additional information.
- **Spark arrester:** When the value of the work exceeds \$1,000, a spark arrester must be installed on fireplace chimneys if one does not already exist per MMC Section II-3-2.06. Spark arresters shall be constructed in conformance with CRC Section 1003.9.1.

### 3. ROOM REQUIREMENTS:

- ☐ Ceiling height shall not be less than 7'-0" in kitchen per CRC Section **R305.1**.
- ☐ A self-closing, tight fitting, solid-wood door 1-3/8" thick or a 20-minute fire-rated door is required between a kitchen and the garage per CRC Section R302.5.1.

### 4. ELECTRICAL REQUIREMENTS – Installation of any new or replacement of any existing electrical shall comply with the following. **NOTE: All kitchen remodels must include upgrading the existing receptacles to have GFCI protection if not already existing.**

- ☐ If new circuits or additional loads are being added, including adding new outlets, and the service is less than 100 amps, the service panel must be upgraded to a minimum 100 amps (CEC 230.79(C)).
- ☐ A receptacle outlet shall be installed at each wall countertop space that is 12 inches or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 24 inches measured horizontally from a receptacle outlet in that space. per CEC Section 210.52(C)(1).
- ☐ Receptacle outlets shall be located above, but not more than 20 inches above the countertop and not in a face-up position on the countertop. Receptacle outlets rendered not readily accessible by appliances fastened in place shall not be considered as these required outlets per CEC Section 210.52(C)(5).

- ☐ Outlet boxes shall be installed so the front edge of the box, plaster ring, extension ring, or listed extender will not be set back of the finished surface more than 1/4". Installation of new counter backsplash or other wall finishes may require the extension of existing boxes. (CEC 314.20)
- ☐ At least one receptacle is required at island and peninsular countertops with a long dimension of at least 24 inches and a short dimension of at least 12 inches per CEC Section 210.52(C)(2) and (3).
- ☐ CEC Section 210.52(B) requires two or more 20-ampere small appliance branch circuits for all receptacle outlets for the small appliance loads (including refrigeration equipment) in the kitchen, dining room, pantry, breakfast room, electric clock receptacle, and electric loads associated with gas fired appliances; but these circuits are to have no other outlets. Provide separate circuits for the garbage disposal and the dishwasher.
- ☐ Receptacles shall be protected with GFCI(s) per CEC Section 210.8(A)(6). Refrigeration equipment is exempt from the GFCI requirements. 210.52(B) exception #2 shall be permitted to be supplied from individual branch circuit.
- ☐ Branch circuit conductors supplying ranges, ovens and other cooking appliances shall have an ampacity rating of not less than the maximum load served. For ranges 8¾ kW or more rating, the minimum branch-circuit rating shall be 40 amperes per CEC Section 210.19(A)(3). A minimum 40-ampere rating would be No. 8 type TW copper or No. 6 Type TW aluminum.

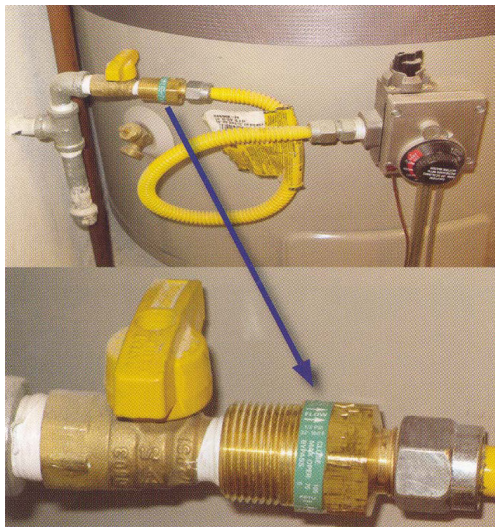
#### 5. **ENERGY REQUIREMENTS:**

- ☐ All lighting must comply with all applicable mandatory measures of the California Energy Code. Refer to the attached form MF-1R for a list of the mandatory requirements.
- ☐ If adding or replacing lighting in the kitchen, a minimum of 50% of the total rated lighting wattage (based on the maximum allowed for each fixture) shall be high efficacy fixtures (e.g. fluorescent) switched separately from any low efficacy lighting.
- ☐ Permanent lighting internal to cabinets shall not use more than 20 watts of power per linear foot of illuminated cabinet.
- ☐ Recessed lighting in insulated ceilings must be rated for direct insulation contact (IC), certified as airtight construction (AT), and must have a sealed gasket or caulking between the housing and ceiling to prevent the flow of heated or cooled air out of the living areas and into the ceiling cavity (CEC 150(k)12).
- ☐ Luminaries installed to meet the minimum lumens per watt requirement (high efficacy) shall not contain medium base incandescent lamp sockets.
- ☐ **Title 24 Energy Compliance Reports:** The following forms must be filled out and attached to the permit prior to inspection:
  - Mandatory Measures form MF-1R.
  - Installation Certificate CF-6R-LTG-01.

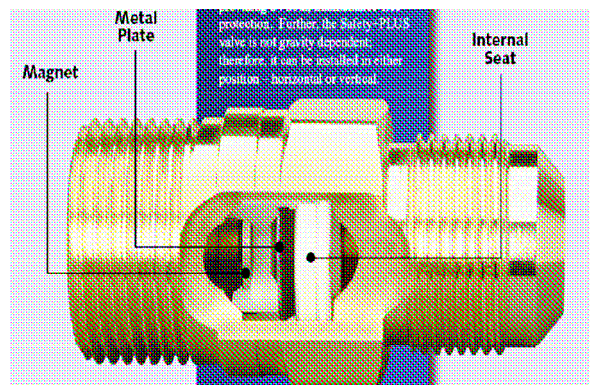
#### 6. **PLUMBING REQUIREMENTS:**

- ☐ On the discharge side of the dishwasher provide a listed air gap fitting. Listed air gaps shall be installed with the flood level (FL) marking at or above the flood level of the sink or drain board whichever is higher per CPC Section 807.4.

- ❑ New gas piping must be installed back to the meter or calculations must be provided to show the existing piping is adequately sized.
- ❑ It is the responsibility of the installer to verify that the new or existing gas supply is correctly sized before installation. Refer to the separate handout “*Gas Piping*” for additional information.
- ❑ Listed flexible gas connectors in compliance with CSAZ21.24, Standard for Connectors for Gas Appliances. The connector shall be used in accordance with the terms of their listing that are completely in the same room as the appliance. [NFPA 54:9.6.1(3)] Connectors must be located completely in the same room as the appliance. The listed metal connector for a gas range or oven installation shall be sized to appliance demand (established by manufacturer) and shall be a maximum of 6 feet long. (CPC Section 1212.0)
- ❑ An approved Excess Flow Gas Shut-off Device (non-motion sensitive) shall be installed at the gas fuel appliance outlet when replacing any existing gas fuel appliance or when installing any new gas fuel appliance. The Excess Flow Device shall be installed between the shutoff valve and the connector. (MMC II-170-2.00)



Close up view of an excess flow device:

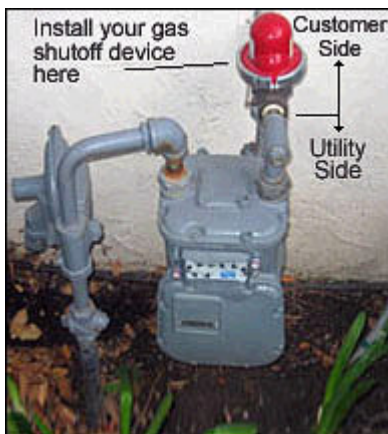




- ❑ An approved Seismic Gas Shut-off Device (motion sensitive) *or* an approved Excess Flow Gas Shut-off Device (non-motion sensitive) shall be installed downstream of the gas utility meter (after PG&E service tee), but upstream of any appliances, where the gas line serves any new building (commercial, industrial or residential) or when providing alteration or addition to the existing gas fuel line. (MMC II-170-2.00)



"California Valve"



- ❑ Automatic Gas Shut-off Devices shall be installed by a contractor licensed in the appropriate classification by the State of California and in accordance with the manufacturer's instructions.
- ❑ Seismic Gas Shut-off Devices (motion sensitive) must be mounted rigidly to the exterior of the building or structure containing the fuel gas piping. This requirement need not apply if the Building and Safety Department determines that the Seismic Gas Shut-off Device (motion sensitive) has been tested and listed for an alternate method of installation.
- ❑ Both Seismic Gas Shut-off Devices (motion sensitive) and Excess Flow Gas Shut-off Devices (non-motion sensitive) must be certified by the Office of State Architect and be listed by an approved listing and testing agency such as IAS, IAPMO, UL or the Office of State Architect.
- ❑ Both Seismic Gas Shut-off Devices (motion sensitive) and Excess Flow Gas Shut-off Devices (non-motion sensitive) must have a thirty (30) year warranty which warrants that the valve or device is free from defects and will continue to operate properly for thirty (30) years from the date of installation.
- ❑ Where Automatic Gas Shut-off Devices are installed voluntarily or as required by code, they shall be maintained for the life of the building or structure or be replaced with a valve or device complying with the requirements of this section.

## 7. **MECHANICAL REQUIREMENTS:**

- ☐ CMC 916.(B): Vertical Clearance Above Cooking Top. Household cooking appliances shall have a vertical clearance above the cooking top of not less than thirty (30) inches to combustible material or metal cabinets. A minimum clearance of twenty-four (24) inches is permitted when one of the following is installed:
  - The underside of the combustible material or metal cabinet above the cooking top is protected with not less than one-fourth of inch insulating millboard covered with sheet metal not less than 0.0122 inch thick.
  - A metal ventilating hood of sheet metal not less than 0.0122 inch thick is installed above the cooking top with a clearance of not less than one fourth of inch between the hood and the underside of the combustible material or metal cabinet, and the hood is at least as wide as the appliance and is centered over the appliance.
  - A listed cooking appliance or microwave oven is installed over a listed cooking appliance and will conform to the terms of the upper appliance's listing and the manufacturer's instructions. [NFPA 54: 10.15.1.2]
- ☐ Kitchen hood ventilation can be met with either a ducted range hood, a ceiling or wall mounted exhaust fan, or ducted ventilation system that provides at least 5 air changes of the kitchen volume per hour. A minimum intermittent ventilation airflow rate of 100 cfm and a maximum of 3.0 sone rate are required for kitchen exhaust fan per CEnC.Sec.150(o) & ASHREA 62.2.
- ☐ Microwave must be listed for installation over range.
- ☐ Exhaust ducts shall terminate outside the building and shall be equipped with a back-draft damper per CMC Section 504.1. Ducts shall terminate 3 feet from property line and 3 feet from openings into building.

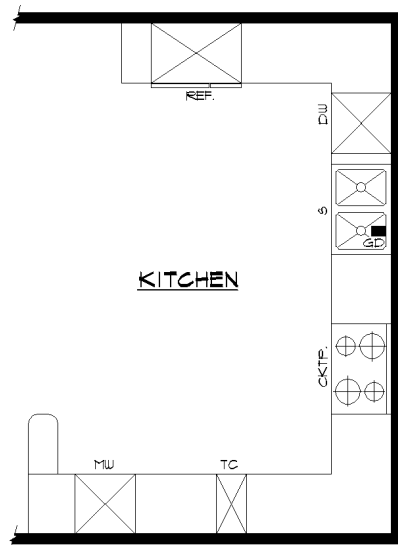
## 8. **INSPECTIONS:**

- ☐ A minimum of two inspections is required for kitchen remodels. A rough electrical inspection should be scheduled after the electrical boxes are installed and before any devices are connected. Any other structural, mechanical, or plumbing alterations should also be scheduled for a rough inspection. Additional inspections may be needed based on extent of the project. The final inspection should be scheduled after all the work is completed. Review with your inspector during the first inspection the requirements for your project. For each inspection, the Permit Card with the Energy Compliance Report forms completely filled and out attached, and the Approved Job Copy of the Drawings (if any) must be presented to the inspector. Permits expire 180 days after the last passed inspection.

## 9. **QUESTIONS:**

- ☐ If you have any questions regarding your project contact the Building & Safety Department at (408) 586-3240.

## REQUIRED CIRCUITS

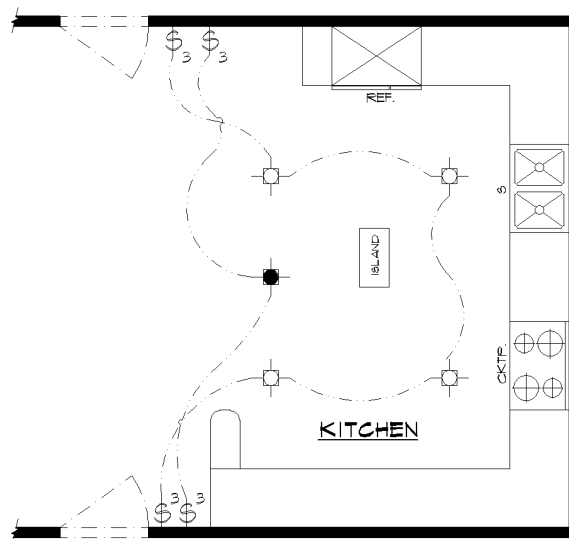


SAMPLE FLOOR PLAN






- (2) SMALL APPLIANCES  
BRANCH CIRCUIT
- (1) LIGHTING
- (1) GARBAGE DISPOSAL
- (1) TRASH COMPACTOR
- (1) RANGE
- (1) OVEN
- (1) DISHWASHER
- (1) WARNER DRAWER
- (1) INSTANT HOT
- (1) MICROWAVE
- (1) HOOD
- (1) REFRIGERATOR  
(IF BUILT IN)

## ABBREVIATION

REF	REFRIGERATOR
CKTP.	COOK TOP
S	SINK
DW	DISHWASHER
GD	GARBAGE DISPOSAL
MW	MICROWAVE



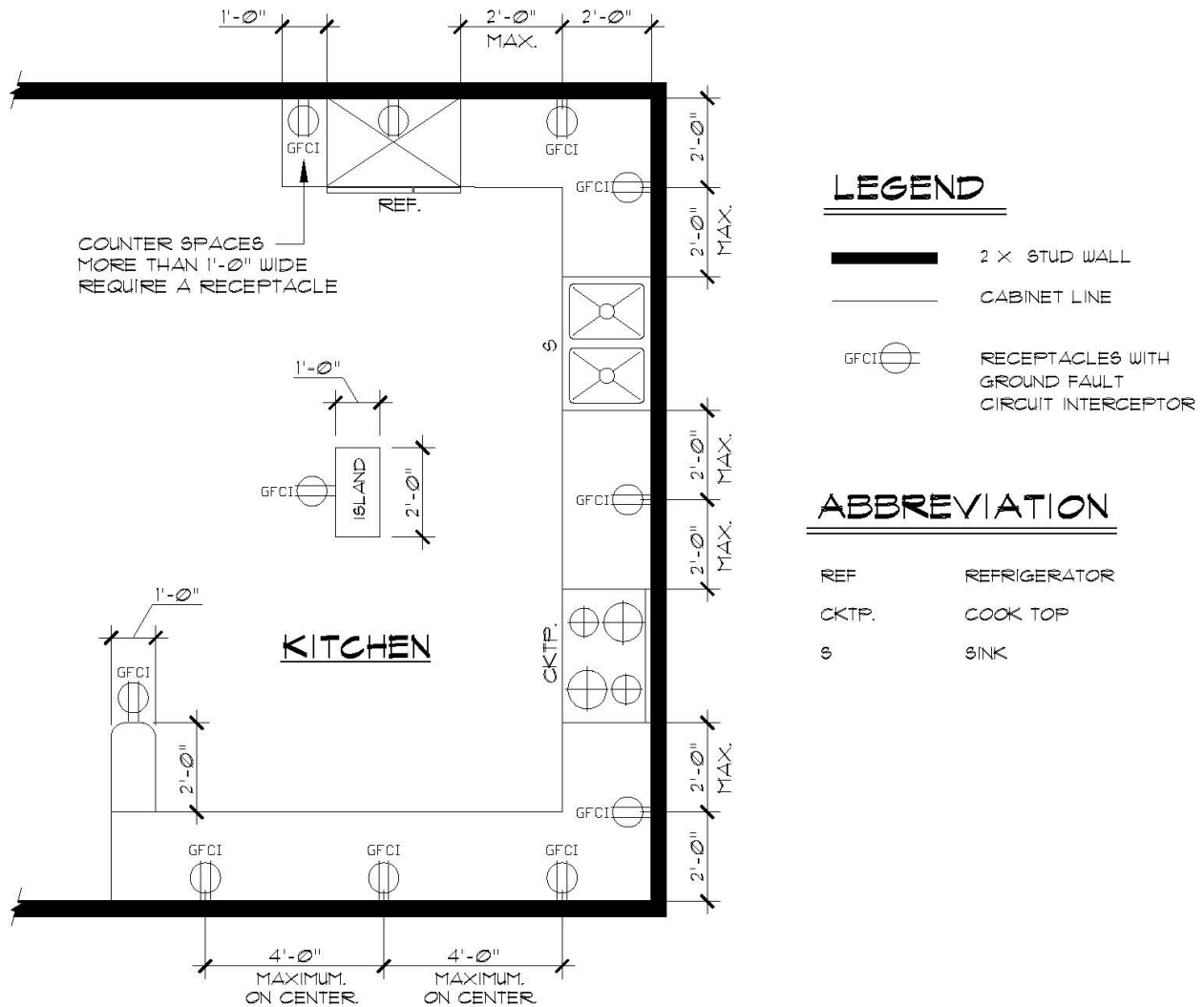
LEGEND

	2 X STUD WALL
	CABINET LINE
	26 WATT HIGH EFFICACY FLUORESCENT
	100 WATT INCANDESCENT
	3-WAY SWITCH

### ABBREVIATION

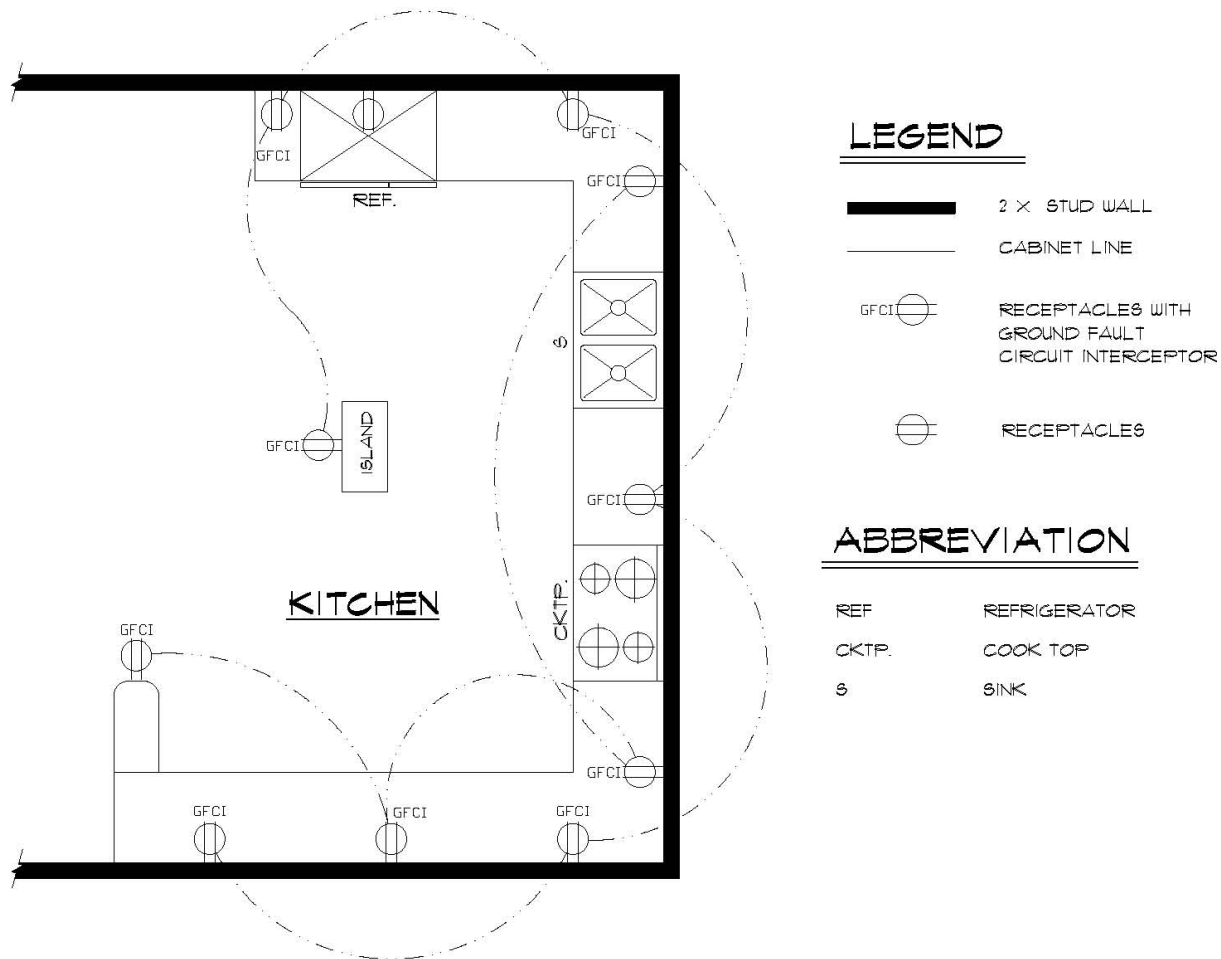
REF	REFRIGERATOR
CKTP.	COOK TOP
S	SINK

### SAMPLE LIGHTING FLOOR PLAN

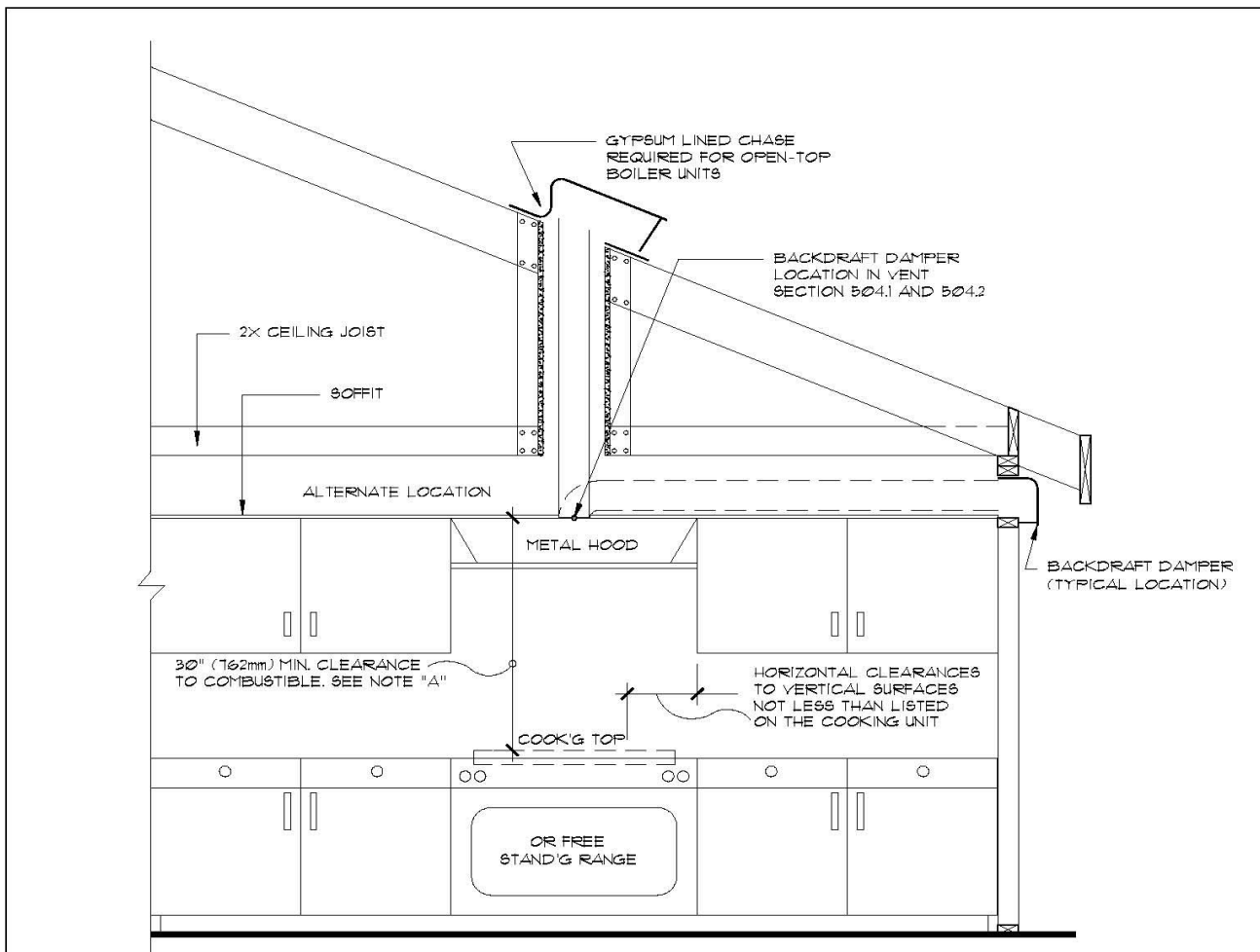


## SAMPLE RECEPTACLES ELECTRICAL FLOOR PLAN





## SAMPLE RECEPTACLES ELECTRICAL FLOOR PLAN



**NOTE "A"**

□ CMC 916.(B): Vertical Clearance Above Cooking Top. Household cooking appliances shall have a vertical clearance above the cooking top of not less than thirty (30) inches to combustible material or metal cabinets. A minimum clearance of twenty-four (24) inches is permitted when one of the following is installed:

- The underside of the combustible material or metal cabinet above the cooking top is protected with not less than one-fourth of inch insulating millboard covered with sheet metal not less than 0.0122 inch thick.
- A metal ventilating hood of sheet metal not less than 0.0122 inch thick is installed above the cooking top with a clearance of not less than one fourth of inch between the hood and the underside of the combustible material or metal cabinet, and the hood is at least as wide as the appliance and is centered over the appliance.
- A listed cooking appliance or microwave oven is installed over a listed cooking appliance and will conform to the terms of the upper appliance's listing and the manufacturer's instructions. [NFPA 54: 10.15.1.2]

REV.	DATE	BY:	SCALE:
I	01/2011	BK	N.T.S
			DATE: AUG. 2006
			DRAWN BY: BK.

**City of Milpitas**  
Building & Safety Division  
**RESIDENTIAL COOK-TOP RANGE**

**SHEET**  
**1**  
**OF 1 SHEETS**

<b>Mandatory Measures Summary</b>		<b>Lighting Only</b>	<b>MF-1R</b>
<b>Residential</b>			
Site Address:		Enforcement Agency: City of Milpitas	Date:

<b>Residential Lighting Measures:</b>
§150(k)1: High efficacy luminaires or LED Light Engine with Integral Heat Sink has an efficacy that is no lower than the efficacies contained in Table 150-C and is not a low efficacy luminaire as specified by §150(k)2.
§150(k)3: The wattage of permanently installed luminaires shall be determined as specified by §130(d).
§150(k)4: Ballasts for fluorescent lamps rated 13 Watts or greater shall be electronic and shall have an output frequency no less than 20 kHz.
§150(k)5: Permanently installed night lights and night lights integral to a permanently installed luminaire or exhaust fan shall contain only high efficacy lamps meeting the minimum efficacies contained in Table 150-C and shall not contain a line-voltage socket or line-voltage lamp holder; OR shall be rated to consume no more than five watts of power as determined by §130(d), and shall not contain a medium screw-base socket.
§150(k)6: Lighting integral to exhaust fans, in rooms other than kitchens, shall meet the applicable requirements of §150(k).
§150(k)7: All switching devices and controls shall meet the requirements of §150(k)7.
§150(k)8: A minimum of 50 percent of the total rated wattage of permanently installed lighting in kitchens shall be high efficacy. EXCEPTION: Up to 50 watts for dwelling units less than or equal to 2,500 ft <sup>2</sup> or 100 watts for dwelling units larger than 2,500 ft <sup>2</sup> may be exempt from the 50% high efficacy requirement when: all low efficacy luminaires in the kitchen are controlled by a manual on occupant sensor, dimmer, energy management system (EMCS), or a multi-scene programmable control system; and all permanently installed luminaires in garages, laundry rooms, closets greater than 70 square feet, and utility rooms are high efficacy and controlled by a manual-on occupant sensor.
§150(k)9: Permanently installed lighting that is internal to cabinets shall use no more than 20 watts of power per linear foot of illuminated cabinet.
§150(k)10: Permanently installed luminaires in bathrooms, attached and detached garages, laundry rooms, closets and utility rooms shall be high efficacy. EXCEPTION 1: Permanently installed low efficacy luminaires shall be allowed provided that they are controlled by a manual-on occupant sensor certified to comply with the applicable requirements of §119. EXCEPTION 2: Permanently installed low efficacy luminaires in closets less than 70 square feet are not required to be controlled by a manual-on occupant sensor.
§150(k)11: Permanently installed luminaires located in rooms or areas other than in kitchens, bathrooms, garages, laundry rooms, closets, and utility rooms shall be high efficacy luminaires. EXCEPTION 1: Permanently installed low efficacy luminaires shall be allowed provided they are controlled by either a dimmer switch that complies with the applicable requirements of §119, or by a manual-on occupant sensor that complies with the applicable requirements of §119. EXCEPTION 2: Lighting in detached storage building less than 1000 square feet located on a residential site is not required to comply with §150(k)11.
§150(k)12: Luminaires recessed into insulated ceilings shall be listed for zero clearance insulation contact (IC) by Underwriters Laboratories or other nationally recognized testing/rating laboratory; and have a label that certifies the luminaire is airtight with air leakage less than 2.0 CFM at 75 Pascals when tested in accordance with ASTM E283; and be sealed with a gasket or caulk between the luminaire housing and ceiling.
§150(k)13: Luminaires providing outdoor lighting, including lighting for private patios in low-rise residential buildings with four or more dwelling units, entrances, balconies, and porches, which are permanently mounted to a residential building or to other buildings on the same lot shall be high efficacy. EXCEPTION 1: Permanently installed outdoor low efficacy luminaires shall be allowed provided that they are controlled by a manual on/off switch, a motion sensor not having an override or bypass switch that disables the motion sensor, and one of the following controls: a photocontrol not having an override or bypass switch that disables the photocontrol; OR an astronomical time clock not having an override or bypass switch that disables the astronomical time clock; OR an energy management control system (EMCS) not having an override or bypass switch that allows the luminaire to be always on EXCEPTION 2: Outdoor luminaires used to comply with Exception 1 to §150(k)13 may be controlled by a temporary override switch which bypasses the motion sensing function provided that the motion sensor is automatically reactivated within six hours. EXCEPTION 3: Permanently installed luminaires in or around swimming pool, water features, or other location subject to Article 680 of the California Electric Code need not be high efficacy luminaires.
§150(k)14: Internally illuminated address signs shall comply with Section 148; OR not contain a screw-base socket, and consume no more than five watts of power as determined according to §130(d).
§150(k)15: Lighting for parking lots and carports with a total of for 8 or more vehicles per site shall comply with the applicable requirements in Sections 130, 132, 134, and 147. Lighting for parking garages for 8 or more vehicles shall comply with the applicable requirements of Sections 130, 131, 134, and 146
§150(k)16: Permanently installed lighting in the enclosed, non-dwelling spaces of low-rise residential buildings with four or more dwelling units shall be high efficacy luminaires. EXCEPTION: Permanently installed low efficacy luminaires shall be allowed provided that they are controlled by an occupant sensor(s) certified to comply with the applicable requirements of §119.

## CF-6R-LTG-01

**(Page 1 of 3)**

**Site Address:****Enforcement Agency:**

Permit Number:

## 1. Kitchen Lighting

Does project include kitchen lighting?

☐ Yes, complete section 1      ☐ No, go on to section 2

☐ Yes §150(k)3: The wattage of permanently installed luminaires (lighting fixtures) has been determined as specified by §130(d).

☐ Yes ☐ No §150(k)3: In the kitchen, are there electrical boxes finished with a blank cover or where no electrical equipment has been installed, and where the electrical box can be used for a luminaire or a surface mounted ceiling fan? If yes, the following row must also be yes:

☐ Yes ☐ NA Wattage has been calculated as 180 watts of low efficacy lighting per blank electrical box.

**§150(k)8 Kitchen Lighting must comply with either method (a), (b), or (c) below:**

### (a) All high efficacy luminaires

☐ Yes, complies because only high efficacy luminaires have been installed in the kitchen.

☐ No, complies with method (b) or (c).

**(b)  $\geq 50\%$  watts used by high efficacy luminaires**

☐ Yes, complies because at least 50% of the installed watts are from permanently installed high efficacy luminaires as demonstrated in the table below: Total A  $\geq$  Total B.

☐ No, complies with method (a) or (c).

Fill out the following table if complying with either method (b) or (c).

**Table (b)**

Luminaire Type	Efficacy		Watts	x	Quantity	=	High Efficacy Watts	or	Low Efficacy Watts
	High	Low							
	<input type="checkbox"/>	<input type="checkbox"/>		x		=		or	
	<input type="checkbox"/>	<input type="checkbox"/>		x		=		or	
	<input type="checkbox"/>	<input type="checkbox"/>		x		=		or	
	<input type="checkbox"/>	<input type="checkbox"/>		x		=		or	
	<input type="checkbox"/>	<input type="checkbox"/>		x		=		or	
Complies with method (b) if $A \geq B$									
Total:					A:	$\geq$ B:			

**(c) Additional Kitchen Low Efficacy Lighting**

☐ Yes, complies because the kitchen lighting qualifies for additional low efficacy lighting and as demonstrated in table in (b) (above) and the table in (c) (below) that  $(A + C) \geq B$

☐ No, complies with method (a) or (b).

**Additional kitchen low efficacy lighting is available only if all of the following are true:**

☐ Yes. All low efficacy luminaires in the kitchen are controlled by a vacancy sensor Dimmer energy management control system (EMCS) or a multi-scene programmable control system.

☐ Yes. Permanently installed luminaires in garages laundry rooms closets greater than 70 square feet and utility rooms are high efficacy luminaires AND are controlled by a vacancy sensor.

**Table (c)**

From the Table in (b)		Use 50 W for dwelling units $\leq 2,500 \text{ ft}^2$ Use 100 W for dwelling units $> 2,500 \text{ ft}^2$	Add	Yes/No ?
A	B	C	A + C	Is (A+C) $\geq$ B ?

## 2. Lighting Internal to Cabinets

Does project includes lighting internal to cabinets?

☐ Yes, complete section 2      ☐ No, go on to section 3

☐ Yes, §150(k)9: Permanently installed lighting internal to cabinets uses  $\leq 20$  watts of power per linear foot of illuminated cabinet.

<b>INSTALLATION CERTIFICATE</b>		<b>CF-6R-LTG-01</b>
<b>Residential Lighting</b>		<b>(Page 2 of 3)</b>
<b>Site Address:</b>	<b>Enforcement Agency:</b>	<b>Permit Number:</b>

### 3. Installed Devices and Components Have Been Certified to the Energy Commission

Does the project include any of the devices or components listed below? ☐ Yes, complete section 3 ☐ No, go on to section 4

☐ Yes  
 §119 and §150(k)7(F): Any of the following devices and components which have been installed have been certified to the Energy Commission according to the applicable provisions of §119: All LED lighting systems that are classified as high efficacy, ballasts used in recessed luminaires, vacancy sensors (automatic off/manual on occupant sensors), dimmers, track lighting integral current limiters, and outdoor motion sensors.

### 4. Lighting Controls Complete section 4

- |  |            |   |
|--|------------|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> NA | §150(k)7A: | Permanently installed low efficacy luminaires are controlled by switches separate from those controlling high efficacy luminaires.  |
| <input type="checkbox"/> Yes <input type="checkbox"/> NA | §150(k)7B: | Exhaust fans with integral lighting systems are switched separately from lighting systems, OR have a lighting system that can be manually turned on and off while allowing the fan to continue to operate for an extended period of time. |
| <input type="checkbox"/> Yes <input type="checkbox"/> NA | §150(k)7C: | All permanently installed luminaires are switched with readily accessible controls that permit the luminaires to be manually switched on and off.   |
| <input type="checkbox"/> Yes <input type="checkbox"/> NA | §150(k)7D: | All lighting controls have been installed in accordance with the manufacturer's instructions.   |
| <input type="checkbox"/> Yes <input type="checkbox"/> NA | §150(k)7E: | All lighting circuits that are controlled by more than one switch, where a dimmer or vacancy sensor has been installed to comply with §150(k), no controls bypass the dimmer or vacancy sensor functions.                                 |

### 5. Luminaires (Lighting Fixtures)

Does the project include the installation of any luminaires (indoor or outdoor)?

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Yes, complete section 5 <input type="checkbox"/> No, go on to section 6   |   |   |
| <input type="checkbox"/> Yes, high efficacy luminaire classification has been determined according to §150(k)1, and low efficacy luminaire classification has been determined according to §150(k)2. |   |   |
| <input type="checkbox"/> Yes <input type="checkbox"/> NA   | §150(k)4:   | Fluorescent lamps rated 13 watts or greater have an electronic ballasts having an output frequency no less than 20 kHz.   |
| <input type="checkbox"/> Yes <input type="checkbox"/> NA   | §150(k)5:   | Permanently installed night lights, and night lights integral to permanently installed luminaires or exhaust fans, contain only high efficacy lamps meeting the minimum efficacies contained in Table 150-C and do not contain a line-voltage socket or line voltage lamp holder, OR the night light is rated to consume no more than 5 watts of power and does not contain a medium screw-base socket. |
| <input type="checkbox"/> Yes <input type="checkbox"/> NA   | §150(k)6:   | Lighting integral to exhaust fans, in rooms other than kitchens, meet the applicable requirements of §150(k).   |
| <input type="checkbox"/> Yes <input type="checkbox"/> NA   | Any electrical box finished with a blank cover or where no electrical equipment has been installed, and where the electrical box can be used for a luminaire or a surface mounted ceiling fan, has been treated as low efficacy luminaires for compliance with §150(k). |   |

### Does the project include any luminaires that are recessed into insulated ceilings?

- |  |  |
|--|--|
| <input type="checkbox"/> Yes, complete the rest of section 5 <input type="checkbox"/> No, go on to section 6   |  |
| <input type="checkbox"/> Yes, §150(k)12:   | Luminaires that are recessed into insulated ceilings meet all of the following conditions: |
| <input type="checkbox"/> Yes, are listed, as defined in §101, for zero clearance insulation contact (IC) by UL or other nationally recognized testing/rating laboratory, and   |  |
| <input type="checkbox"/> Yes, have labels that certify the luminaires are airtight with air leakage less than 2.0 CFM at 75 Pascals when tested in accordance with ASTM E283 (Exhaust fan housings are not required to be certified airtight), and                 |  |
| <input type="checkbox"/> Yes, are sealed with a gasket or caulk between luminaire housings and the ceiling, and all air leak paths between conditioned and unconditioned spaces have been sealed with a gasket or caulk. (including all exhaust fan housings), and |  |
| <input type="checkbox"/> Yes, allows ballast maintenance and replacement to be readily accessible to building occupants from below the ceiling without requiring the cutting of holes in the ceiling.  |  |

### 6. Indoor Lighting (any indoor room that is not a kitchen)

Does the project include permanently installed luminaires in any room that is not a kitchen?

- |  |   |
|--|---|
| <input type="checkbox"/> Yes, complete section 6 <input type="checkbox"/> No, go on to section 7 |   |
| <input type="checkbox"/> Yes <input type="checkbox"/> NA   | §150(k)10: Permanently installed luminaires in bathrooms, garages, laundry rooms, closets > 70 ft <sup>2</sup> , and utility rooms are high efficacy luminaires OR are controlled by a vacancy sensor.  |
| <input type="checkbox"/> Yes <input type="checkbox"/> NA   | §150(k)11: Permanently installed luminaires located in rooms or areas other than in kitchens, bathrooms, garages, laundry rooms, closets, and utility rooms are high efficacy luminaires, OR are controlled by a dimmer switch OR are controlled by a vacancy sensor. |

**INSTALLATION CERTIFICATE****CF-6R-LTG-01****Residential Lighting****(Page 3 of 3)****Site Address:****Enforcement Agency:****Permit Number:****7. Outdoor Lighting**

Does the project include any permanently installed outdoor lighting?

☐ Yes, complete section 7 ☐ No, go on to section 8

☐ Yes ☐ NA §150(k)13: Luminaires providing outdoor lighting, including outdoor lighting for private patios on low-rise residential buildings with four or more dwelling units, entrances, balconies, and porches, and which are permanently mounted to a residential building or to other buildings on the same lot are high efficacy luminaires OR are controlled by a manual on/off switch, plus a motion sensor not having an override or bypass switch that disables the motion sensor, plus one of the following three additional control methods:

- a. A photocontrol that does not have an override or bypass switch that disables the photocontrol; or
- b. An astronomical time clock not having an override or bypass switch that disables the astronomical time clock; or
- c. Energy management controls systems (EMCS) not having an override or bypass switch that allows the luminaire to be always on.

☐ Yes ☐ NA **Exception 2:** Low efficacy outdoor luminaires used to comply with Exception 1 to §150(k)13 are controlled by an override switch which temporarily bypasses the motion sensing function, and the motion sensor is automatically reactivated within six hours. The luminaire is controlled by a photocontrol, astronomical time clock, or EMCS as required by Exception 1 to §150(k)13.

☐ Yes ☐ NA **Exception 3:** There are permanently installed luminaires in or around swimming pools, water features, or other locations subject to Article 680 of the California Electric Code which do not need to be high efficacy luminaires.

☐ Yes ☐ NA §150(k)14: Internally illuminated address signs comply with §148, OR do not contain a screw-base socket and consume no more than 5 watts of power as determined according to §130(d).

☐ Yes ☐ NA §150(k)15 Lighting for parking lots and carports with a total of 8 or more vehicles per site have lighting that complies with §130, 132, 134, and 147. Lighting for parking garages for 8 or more vehicles comply with §130, 131, 134, and 146. If yes, the Nonresidential compliance forms must be submitted

**8. Common areas of low-rise residential buildings**

Does the project include the installation of any luminaires in common areas of low-rise residential buildings?

☐ Yes, complete section 8 ☐ No, go on to section 9

☐ Yes, §150(k)16: Permanently installed lighting in the enclosed, non-dwelling spaces of low-rise residential buildings with four or more dwelling units shall be high efficacy luminaires OR are controlled by occupant sensor(s) certified to comply with §119(d).

**DECLARATION STATEMENT**

- I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for construction, or an authorized representative of the person responsible for construction (responsible person).
- I certify that the installed features, materials, components, or manufactured devices identified on this certificate (the installation) conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the enforcement agency.
- I reviewed a copy of the Certificate of Compliance (CF-1R) form approved by the enforcement agency that identifies the specific requirements for the installation. I certify that the requirements detailed on the CF-1R that apply to the installation have been met.
- **I will ensure that a completed, signed copy of this Installation Certificate shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a signed copy of this Installation Certificate is required to be included with the documentation the builder provides to the building owner at occupancy.**

Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)

Responsible Person's Name:

Responsible Person's Signature:

CSLB License:

Date Signed:

Position With Company (Title):